

in which radicals  $R^1$  to  $R^{17}$ , independently of one another, have the following meanings:

$R^1$  is a halogen atom, a hydroxyl group, a methyl group, a trifluoromethyl group, a methoxy group, an ethoxy group or a hydrogen atom;

$R^2$  is a halogen atom, a hydroxyl group, a straight-chain or branched-chain, saturated or unsaturated alkoxy group with 1 to 6 carbon atoms or a hydrogen atom;

$R^4$  is a halogen atom, a straight-chain or branched-chain, saturated or unsaturated alkyl group with 1 to 10 carbon atoms, a trifluoromethyl or pentafluoroethyl group, a straight-chain or branched-chain, saturated or unsaturated alkoxy group with 1 to 6 carbon atoms or a hydrogen atom;

$R^7$  is a halogen atom in  $\alpha$ - or  $\beta$ -position, a straight-chain or branched-chain, saturated or unsaturated, optionally partially or completely fluorinated alkyl group with 1 to 10 carbon atoms in  $\alpha$ - or  $\beta$ -position, a straight-chain or branched-chain, saturated or unsaturated alkoxy group with 1 to 6 carbon atoms, an optionally substituted aryl or heteroaryl radical or a hydrogen atom;

$R^8$  is a hydrogen atom in  $\alpha$ - or  $\beta$ -position, a straight-chain or branched-chain, saturated or unsaturated, optionally partially or completely fluorinated alkyl group with 1 to 10 carbon atoms in  $\alpha$ - or  $\beta$ -position or a cyano group in  $\alpha$ - or  $\beta$ -position;

$R^9$  is a hydrogen atom in  $\alpha$ - or  $\beta$ -position, a methyl, ethyl, trifluoromethyl or pentafluoroethyl group in  $\alpha$ - or  $\beta$ -position;

$R^{11}$  is a nitrooxy group in  $\alpha$ - or  $\beta$ -position, a hydroxyl or mercapto group in  $\alpha$ - or  $\beta$ -position, a halogen atom in  $\alpha$ - or  $\beta$ -position, a chloromethyl group in  $\alpha$ - or  $\beta$ -position, a straight-chain or branched-chain, saturated or unsaturated, optionally partially or completely

fluorinated alkyl group with 1 to 10 carbon atoms in  $\alpha$ - or  $\beta$ -position, a straight-chain or branched-chain, saturated or unsaturated alkoxy or alkylthio group with 1 to 6 carbon atoms, an optionally substituted aryl or heteroaryl radical or a hydrogen atom;

$R^{13}$  is a methyl, ethyl, trifluoromethyl or pentafluoroethyl group in  $\beta$ -position;

and either

$R^{14}$  is a straight-chain or branched-chain, saturated or unsaturated, optionally partially or completely fluorinated alkyl group with 1 to 10 carbon atoms in  $\alpha$ - or  $\beta$ -position or a hydrogen atom in  $\alpha$ - or  $\beta$ -position

and

$R^{15}$  is a halogen atom in  $\alpha$ - or  $\beta$ -position, a straight-chain or branched-chain, saturated or unsaturated, optionally partially or completely fluorinated alkyl group with 1 to 10 carbon atoms in  $\alpha$ - or  $\beta$ -position that can be interrupted by one or more oxygen atoms, sulfur atoms, sulfoxide or sulfone groups or imino groups =  $NR^{15'}$  wherein  $R^{15'}$  = hydrogen atom, methyl, ethyl, propyl, i-propyl; or a hydrogen atom

or

$R^{14}$  and  $R^{15}$  together is a  $14\alpha,15\alpha$ -methylene or  $14\beta,15\beta$ -methylene group that are optionally substituted with one or two halogen atoms;

$R^{16}$  is a straight-chain or branched-chain, saturated or unsaturated, optionally partially or completely fluorinated alkyl group with 1 to 10 carbon atoms in  $\alpha$ - or  $\beta$ -position, a trifluoromethyl or pentafluoroethyl group, a cyanomethyl group or a hydrogen atom in  $\alpha$ - or  $\beta$ -position;

C2  
Cant

R<sup>17</sup> is a halogen atom in  $\alpha$ - or  $\beta$ -position, a straight-chain or branched-chain, saturated, optionally partially or completely fluorinated alkyl group with 1 to 10 carbon atoms in  $\alpha$ - or  $\beta$ -position or a hydrogen atom,

the dotted lines ----- in rings B, C and D indicate single bonds, and

the wavy lines mean the arrangement of the respective substituent in  $\alpha$ - or  $\beta$ -position,

excluding the compounds *estra-1,3,5(10)-triene-3,16 $\alpha$ -diol*, *estra-1,3,5(10)-triene-3,16 $\beta$ -diol*, *16 $\beta$ -ethinylestra-1,3,5(10)-triene-3,16 $\alpha$ -diol* and *16 $\alpha$ -ethinylestra-1,3,5(10)-triene-3,16 $\beta$ -diol*.